

The collocation throughput standard also provides the missing link between the benefits of lowering CLECs' costs and encouraging new services, on the one hand, and the statutory language and objectives, on the other hand. By promoting collocation efficiency, the Commission will create a regulatory regime that entitles CLECs to collocate the equipment that is "necessary" for them to take advantage of mandatory ILEC interconnection for *all* of the traffic they are capable of generating. Like the Supreme Court in *AT&T Corp. v. Iowa Utilities Board*, the Court in *GTE* did not reject CLEC cost and service considerations as being irrelevant.<sup>14</sup> Rather, the *GTE* Court merely rejected the presumption that such considerations, no matter how trivial, automatically satisfy the statutory standard for mandatory interconnection. By focusing upon collocation practices that have a material impact on a CLEC's ability to route traffic through its collocation arrangements, the collocation throughput standard avoids the types of irrebuttable presumptions that the courts have criticized.

Further, adopting rules based on the collocation throughput standard would not lead to an unnecessary taking of ILEC property.<sup>15</sup> Under this standard, CLECs will be permitted to engage only in those collocation practices that are "necessary for interconnection" and promote the underlying statutory objective of fostering local competition. Moreover, the two rules CompTel supports – the collocation of multi-function equipment, and CLEC-to-CLEC cross-connections – do not impose any unnecessary taking on ILECs. Multi-function equipment will not require more physical space than other equipment. *See Joint Comments* at VII.C.

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(...continued)  
13 *Id.*

<sup>14</sup> In upholding the Commission's rules on cageless collocation, the *GTE* Court noted with approval that cageless collocation would promote the efficient use of limited space in the ILEC facilities. *GTE* at 425. Clearly, considerations of cost and efficiency are not irrelevant to the statutory inquiry under Section 251(c)(6).

<sup>15</sup> *See National Railroad Passenger Corp.*, 503 U.S. at 407.

Indeed, given the technological trends in favor of such equipment, it is likely that multi-function equipment will entail a lesser taking than moribund single-function equipment. Similarly, CLEC-to-CLEC cross-connections will use scarce collocation space efficiently and minimize the commensurate taking. Without such cross-connections, CLECs would be unable to share each other's collocation resources. Instead, they would have to perform all necessary functions themselves within their own collocation arrangements, which would force them to collocate more equipment than would be the case with efficient CLEC-to-CLEC cross-connections. For example, a CLEC that required access to a frame would have to collocate its own frame even if an adjacent collocating CLEC already had a frame in its collocation space with available capacity. Permitting CLEC-to-CLEC cross-connections will enable CLECs to share collocation resources efficiently, reduce the amount of equipment that must be collocated by all CLECs in a central office, and minimize the amount of ILEC property that must be used for collocation purposes.

Lastly, the collocation throughput standard is consistent with the "ordinary and fair meaning" of Section 251(c)(6). This standard recognizes that the ultimate goal of any carrier when entering into interconnection arrangements or buying unbundled network elements is to carry traffic. Further, this standard recognizes that the type of equipment which may be collocated will directly affect the amount of traffic a carrier routes through its collocation arrangement. The Commission should reject any interpretation of Section 251(c)(6) that relies on a static analysis of collocation arrangements. In particular, the Commission should not assume that a CLEC has a pre-determined amount of traffic to exchange with the ILEC and then examine what collocation arrangements are "necessary" for handling that pre-determined traffic stream. By recognizing that the type of collocation practices in which CLECs engage can play a

large role in determining how much traffic they can generate, the Commission is giving Section 251(c)(6) its “ordinary and fair” meaning in the context of a dynamic rather than a static telecommunications market.

**C. Statutory Interpretation.**

The collocation throughput standard is fully consistent with well-established rules of statutory construction. Courts consistently have construed statutory terms by reference to the language, the statutory and industry context, and the underlying Congressional objectives.<sup>16</sup> It is particularly important to follow these rules when implementing a statute that applies in a technical area, such as collocation.<sup>17</sup> The collocation throughput standard is faithful to the literal meaning of the statutory terms – it requires that equipment be collocated only when it is “necessary” for interconnection. Further, it reflects accurately the dynamic relationship between collocation and interconnection – the amount of traffic a CLEC exchanges with the ILEC depends in part on the types of collocation practices it may engage in -- as well as the reality that CLECs must be able to use their collocation arrangements efficiently in order to fulfill Congress’ desire that they enter the local market and compete effectively. There is no dispute from any party (even, if they are candid, the ILECs) that permitting CLECs to collocate multi-function equipment and to engage in CLEC-to-CLEC cross-connections will promote Congress’ goal of fostering vibrant local competition.

At bottom, the ILECs would like the Commission to construe Section 251(c)(6) so narrowly that CLECs cannot use collocation arrangements efficiently to provide competitive

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<sup>16</sup> See, e.g., *King v. St. Vincent's Hospital*, 502 U.S. at 215; *Shell Oil Company v. Iowa Department of Revenue*, 488 U.S. 19 (1998).

<sup>17</sup> Even the *GTE* court recognized that the terms to be defined are found in a “circumscribed statutory provision that seeks to ensure competition in areas of advanced technology in telecommunications. . . .” *GTE* at 426.

local services. There is no way to reconcile that result with Congress' intention that Section 251(c) promote local competition. If the language of Section 251(c)(6) required such a narrow interpretation, then the Commission's options might be few. Fortunately, the statutory language is more than capable of supporting a reasonable interpretation that enables CLECs, as Congress intended, to use mandatory collocation as a tool for entering previously closed local markets to provide long-desired competition to the ILECs' monopoly services.

**II. THE COMMISSION SHOULD ADOPT RULES TO ENSURE THAT THE DEPLOYMENT OF NEXT GENERATION DIGITAL LOOP CARRIER SYSTEMS DOES NOT DISCRIMINATE AGAINST PARTICULAR CARRIERS OR CLASSES OF CARRIERS.**

Last month the Commission adopted an order permitting SBC Communications, Inc. to move forward with its program, the so-called Project Pronto, to deploy next generation digital loop carrier ("NGDLC") systems on a widespread in-region basis.<sup>18</sup> As the Commission knows, the proliferation of various types of remote terminals poses difficult policy and technical issues in connection with CLECs who desire to use the remote terminals to provide services to end users, as well as CLECs who desire to use collocation arrangements in central offices to provide services to end users. The Commission should adopt rules to ensure that the deployment of NGDLC systems does not discriminate against any carriers in the provision of services to end users.

**A. Multiple Carrier Access.**

The Commission should require ILECs to construct, design and deploy NGDLC systems in a manner that promotes cost-based access by multiple requesting carriers to the maximum feasible extent. Without such access, the ILECs and their affiliates will have

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<sup>18</sup> *Ameritech Corp. and SBC Communications, Inc., Second Memorandum Opinion and Order*, CC Docket No. 98-141, FCC 00-336 (rel. Sept. 8, 2000).

preferential (and in many cases constructively exclusive) access to the NGDLC systems. As NGDLC systems come to dominate the local network infrastructure in the United States, full and fair local competition requires that these systems be designed to incorporate the open architecture necessary for multiple carriers to use the systems efficiently to provide a wide array of services to end users. This policy is critical if consumers are to see the benefits of local competition through more choices of service providers and competitive rates for services. The Commission should adopt this fundamental policy in this proceeding so that ILECs will know how their efforts to deploy NGDLC systems will be assessed by the Commission and the industry.

In order to implement this policy, the Commission should require every ILEC to publicly disclose in advance any plans it may have to deploy NGDLC systems that affect a specified percentage of subscribers within its region. The Commission should then give interested parties sufficient time to challenge at the Commission or state public utility commissions those aspects of the deployment plan which they feel are not consistent with the fundamental goal of multiple carrier access. Further, the Commission should require ILECs to provide as much information about their plans as possible so that CLECs can assess on a complete factual record whether the ILEC has complied with the multiple carrier access policy and what modifications may be necessary to comply with that policy. ILECs should not be permitted to implement NGDLC deployment plans until after this disclosure-and-comment process has been completed. CompTel believes that this approach will not delay the introduction of NGDLC systems by ILECs. Rather, it would merely ensure that CLECs and regulators are able to understand and monitor the ILEC's plans during their developmental period when it is still possible for pro-competitive alternatives to be implemented, in contrast to being presented

with a *fait accompli* at the end of that period (as the industry was by SBC Communications with Project Pronto).

Based on the industry's experience with Project Pronto, the Commission should adopt several rules to ensure multiple carrier access. *First*, SBC has installed NGDLC systems that use splice points rather than cross-connect panels to interconnect a Serving Area Interface, or other intermediate aggregation point, with the remote terminals.<sup>19</sup> The use of splice points shows that SBC desired only one carrier (its affiliate) to be able to use the remote terminal efficiently to provide services to subscribers. Had SBC used cross-connect panels rather than splice points, multiple CLECs could use their collocation (or adjacent collocation) arrangements to interconnect with the Service Area Interfaces. By using splice points, SBC effectively has forced collocating CLECs to trench and bury their own feeder cables out to the Serving Area Interfaces. This is a needless significant expense on top of an already difficult collocation process at remote terminals, and it will constitute a significant barrier to the installation and use of collocation (or adjacent collocation) arrangements by CLECs at remote terminals. Therefore, the Commission should require ILECs to use cross-connect panels rather than splice points wherever it is technically feasible to do so within the NGDLC systems.

*Second*, it is imperative that SBC and other ILECs develop immediately the electronic operations support systems ("OSS") capabilities necessary for multiple carriers to remotely access all features and functions of remote terminals. These OSS capabilities are essential because remote terminals are too numerous, and have such serious constraints regarding size, power, etc., that it is simply not feasible for many CLECs to directly access all (or even

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<sup>19</sup> See, e.g., *Section 271 Compliance Monitoring of Southwestern Bell Telephone Company of Texas*, Transcript of Proceedings Before the Public Utility Commission of Texas, PUC Project No. 20400, Boyer Testimony at 67-72.

some) of these remote terminals to provide services to end users. CLECs should be able to establish their own feature servers to interact directly with the ILECs' centralized switches to remotely access the full features and functionalities of hundreds or even thousands of remote terminals. Once these electronic OSS capabilities are developed and available, CLECs will be able to provide the full range of services available from a remote terminal without having to engage in collocation (or adjacent collocation) at the remote terminal or otherwise directly access the remote terminal. The Commission should establish a date-certain by which ILECs who already use NGDLC systems must establish these OSS capabilities, and require all other ILECs to fully comply with this requirement before they introduce NGDLC systems for the first time.

*Third*, the Commission should prohibit the ILECs or their affiliates from providing services over NGDLC systems that CLECs are not yet able to provide in the same manner using the same functionalities. Unfortunately, the Commission did not adhere to this non-discrimination policy when it authorized SBC to move forward with Project Pronto, as SBC was able to offer integrated voice and data services immediately while CLECs have been forced to wait until SBC develops the capability for them to provide similar services through remote terminals.<sup>20</sup> It is inherently discriminatory for the ILEC or its affiliate to be able to use remote terminals in ways that are effectively precluded to unaffiliated carriers. In order to provide the necessary incentive for ILECs to move expeditiously to make all features and functions of NGDLC systems available to CLECs, and thereby ensure that consumers have competitive choices among numerous carriers for services, the Commission must strictly prohibit ILECs and their affiliates from using remote terminals in ways that are not fully available to non-affiliated requesting carriers.

A corollary rule is that ILECs should not be able to retire "home run" copper loops until requesting carriers are able to provide all services from remote terminals that they now are capable of providing from collocation arrangements in central offices. For example, if a carrier now is able to provide SDSL services from its central office-based collocation arrangement, the ILEC should be prohibited from retiring the "home run" copper loops to a central office unless and until there are remote terminals in place that will permit the carrier to provide SDSL services to subscribers served directly or indirectly by that central office. This rule would be in addition to other rules, similar to conditions adopted by the Commission regarding Project Pronto, designed to limit the ability of ILECs to hamper competing carriers through the retirement of "home run" copper loops.

**B. Spectrum Management.**

The current spectrum management standards and specifications were developed in an environment where all parties were providing advanced services to end users from the same location (*i.e.*, the central office). As a result, these standards and specifications were designed to ensure that carriers can provide services in the same binder group without undue interference when they are all located at essentially the same distance from the end user. The advent of NGDLC systems has undermined that underlying premise. Now it is possible that two carriers will be providing advanced services in the same binder group from different locations at different distances from the subscribers – one from a distant central office, the other from a closer remote terminal. This scenario presents troubling interference issues that have yet to be resolved. As one example, the provision of ADSL services from remote terminals will interfere in some cases

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(...continued)

<sup>20</sup> *Ameritech Corp. and SBC Communications, Inc., Second Memorandum Opinion and Order at paras. 47-48.*



with the provision of other xDSL services (*e.g.*, SDSL or IDSL) from collocation arrangements in more distant central offices.

The introduction of NGDLC systems must not come at the expense of carriers that have established business plans and invested many millions of dollars to serve subscribers from collocation arrangements in the ILECs' central offices. As a result, the Commission should adopt a policy that carriers providing services over NGDLC systems at remote terminals must not interfere with the provision of services by carriers from collocation arrangements in central offices. In cases where NGDLC systems are in the process of being developed and deployed, the disclosure-and-comment procedures outlined above will help carriers to identify potential interference situations before they occur. In cases where services provided over existing NGDLC systems are interfering with central office-based services, the Commission should require the ILEC to resolve the situation promptly at its own expense, and the Commission should hold the ILEC financially responsible for any harm suffered by the carrier whose services are being interfered with.

### CONCLUSION

For the reasons stated herein, the Commission should require ILECs to enable CLECs to collocate multi-function equipment and to engage in CLEC-to-CLEC cross-connections, and the Commission should adopt rules to ensure that NGDLC systems do not discriminate against particular carriers or classes of carriers.

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I hereby certify that on this 12<sup>th</sup> day of October, 2000, I served copies of Comments of Competitive Telecommunications Association by hand and first class mail, U.S. postage prepaid, on the following:

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**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Deployment of Wireline Services Offering	)	CC Docket No. 98-147
Advanced Telecommunications Capability	)	
	)	
and	)	
	)	
Implementation of the Local Competition	)	CC Docket No. 96-98
Provisions of the	)	
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November 14, 2000

## **SUMMARY**

In its comments, CompTel urged the Commission to apply the “collocation throughput” approach when interpreting the phrase “necessary for interconnection or access to unbundled network elements” set forth in section 251(c)(6) of the Act. CompTel demonstrated that cross-connects as well as certain types of multi-function equipment are necessary using this approach. As expected, most of the incumbent local exchange carriers (“ILECs”) have opposed cross-connects and the collocation of any multi-function equipment. As many of the ILECs’ arguments already have been anticipated and, in effect, refuted in the opening comments filed by CompTel and other parties, these comments shall focus on a few specific points.

First, the comments in this proceeding justify use of CompTel’s collocation throughput approach to interpreting the term “necessary.” The comments show that CLECs must be able to collocate multi-function equipment, and to engage in CLEC-to-CLEC cross-connects in order to maximize collocation throughput. As a result, both collocation practices are “necessary” for interconnection of the incremental throughput attributable to the equipment or cross-connects.

Second, the Commission should recognize that various functionalities are necessary for interconnection. In particular, equipment that performs, among other functions, multiplexing, concentration, and/or switching functions is necessary for interconnection and access to UNEs. Absent the ability to collocate such equipment, CLECs effectively are forced to raise rates, offer service to fewer customers, or offer fewer services to customers, each of which result in reduced traffic, thus collocation throughput. Applying the collocation throughput standard to these functions demonstrates that such functions are necessary consistent with the critical limiting standard the court has imposed.

Incumbent LECs have not presented any arguments demonstrating why multi-function equipment is not necessary for interconnection. The incumbent LECs fail to recognize that the increasingly sophisticated equipment that is being developed is smaller than its predecessors and uses less power, thus resulting in less of an imposition than other types of equipment.

Third, the Commission should not seek to distinguish between single-function and multi-function equipment. Many commenters in this proceeding have demonstrated that modern telecommunications equipment essentially defies any categorization into either “single” or “multi” functional equipment. As such, the Commission should not try to determine whether certain equipment is single-function or multi-function, but instead, should enable CLECs to collocate any equipment that would permit them to take advantage of their collocation arrangement.

Fourth, CompTel supports those commenters advocating one or more broadband UNEs. The Commission should clarify that incumbent LECs must offer packet-switching as a UNE to those CLECs that are unable to collocate in a remote terminal. The Commission also should require all ILECs to offer the same broadband service that SBC has been required to offer, and to do so as a UNE combination subject to Section 251(c)(3). CompTel further supports those comments arguing that all features and functionalities of the loop must be available. Lastly, the Commission should ensure that CLECs have access to unbundled wavelengths.

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**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matters of	)	
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Advanced Telecommunications Capability	)	
	)	
and	)	
	)	
Implementation of the Local Competition	)	CC Docket No. 96-98
Provisions of the	)	
Telecommunications Act of 1996	)	

**SEPARATE REPLY COMMENTS OF THE  
COMPETITIVE TELECOMMUNICATIONS ASSOCIATION**

The Competitive Telecommunications Association (“CompTel”), by its attorneys, hereby submits these separate reply comments in response to the Second Notice of Proposed Rulemaking (FCC 00-297) released by the Commission in this proceeding on August 10, 2000. CompTel is participating in joint reply comments submitted today by a number of competitive local exchange carriers (“CLECs”) and their industry associations. CompTel is filing these separate reply comments to present its own perspective on several issues raised in the opening comments.

**I. COMMENTS IN THIS PROCEEDING JUSTIFY COMPTTEL’S COLLOCATION THROUGHPUT APPROACH TO INTERPRETING “NECESSARY.”**

**A. Multi-Function Equipment.**

In its initial comments, CompTel urged the Commission to apply a “collocation throughput” standard when interpreting the phrase “necessary for interconnection or access to unbundled network elements” as set forth in section 251(c)(6) of the Act. The collocation throughput approach recognizes, and is predicated upon, the correlation between the equipment CLECs are permitted to collocate and the volume of traffic exchanged between CLECs and

ILECs through collocation arrangements. The collocation throughput standard shows that the collocation of multi-function equipment, as well as CLEC-to-CLEC cross-connections, fully satisfies the statutory collocation standard.

As expected, the ILECs urge the Commission to throw away its previous rules supporting multi-function equipment collocation. SBC claims that any attempt “to re-impose the multi-functional equipment collocation requirement . . . would be at odds with both the court’s decision in *GTE Service Corp.* and the plain language of section 251(c)(6).”<sup>1</sup> As CompTel and many other commenters have noted in their comments,<sup>2</sup> and as the Commission itself has recognized, the court invited the Commission to re-examine the parameters of what is “necessary,” and did not prohibit the Commission from finding that multi-functional equipment is necessary for interconnection.<sup>3</sup> (Similarly, the Court remanded the issue of CLEC-to-CLEC cross-connections without precluding the FCC from re-adopting such a rule under the relevant statutory standard.) Thus, what is at issue is whether the collocation of multi-function equipment can be “necessary” for interconnection or access to unbundled network elements, and if so, the types of multi-function equipment that ILECs must allow carriers to collocate under section 251(c)(6) of the Act.

**1. Comments in this Proceeding Support the Use of the Collocation Throughput Approach.**

Under the collocation throughput approach, if the collocation of equipment with multiple functions enables a CLEC to increase the traffic exchanged with the ILEC, then such

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<sup>1</sup> SBC Comments at 8; *see also* BellSouth Comments at 3-4.

<sup>2</sup> *See, e.g.*, CompTel Comments at 8; Joint Commenters at 11-13; Comments of RCN Telecom Services, Inc. at ii.

<sup>3</sup> *See GTE Services Corp. v. FCC*, 205 F.3d 416, 424 (2000).

equipment satisfies the “necessary” standard in Section 251(c)(6). Comments in this proceeding illustrate that manufacturers are designing multi-function equipment that will serve a greater number of customers than its equipment predecessors. As one data-CLEC explains, “[b]y integrating multiple functions into newer model equipment, manufacturers are condensing the overall space required for collocation, while at the same time increasing the capacity of the equipment to enable providers to serve a larger customer base.”<sup>4</sup> CLECs are unable to realize this increased customer base, and thereby maximize collocation throughput, without the ability to collocate multi-function equipment.

Comments in this proceeding demonstrate that there are no alternatives to collocating multi-function equipment that do not sacrifice a CLEC’s market position (and collocation throughput). In particular, CLECs would have to incur substantial additional costs if they are unable to collocate multi-function equipment. These costs effectively would preclude CLECs from achieving the throughput realized from collocated multi-function equipment. To the contrary, as non-dominant carriers, CLECs would be unable to offset these additional costs, except by reducing services, narrowing the geographic scope of entry, or raising prices – all of which would reduce aggregate throughput.<sup>5</sup>

The data submitted by Cisco, a leading equipment manufacturer, demonstrates that, in some instances, a CLEC’s costs would increase by thirty-one percent (31%) if it were unable to collocate equipment with multiple functions.<sup>6</sup> To illustrate the additional costs that

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<sup>4</sup> Rhythms NetCommunications at 14.

<sup>5</sup> *See, e.g.*, AT&T Comments at 3, 21; ATG Comments at 3 (“[i]f ATG were unable to collocate this hardware in an ILEC’s central office, ATG would have to incur considerable additional expense...ATG’s ability to compete on a level playing field with ILECs would be substantially impaired”); Cisco Comments at 11 (“such a cost differential could easily make a competitive LEC non-viable as a practical, economic, and operational matter”); Comments of Focal Communications Corporation 13.

<sup>6</sup> Cisco Comments at 11.

would be incurred, Cisco examines a “smart” DSLAM with built-in quality of service (“QoS”) functions.<sup>7</sup> If a CLEC is not permitted to use the QoS functions in its collocated equipment, the only way that it could provide the required quality of service would be to purchase additional bandwidth, DSLAM ports, and power, as well as a second uplink and an additional DS3 transport circuit. Doing so would cause the CLEC to incur substantial additional costs to provide the QoS functions than it would have had to incur using collocated multi-function equipment.<sup>8</sup> As shown above and in CompTel’s comments, the result of having to offset these costs is a decrease in the CLEC’s collocation throughput.

Moreover, as the above example shows, CLECs likely would exhaust port capacity more quickly collocating less sophisticated equipment, which would require CLECs to purchase additional DSLAM ports and power, among other things, than they would have had to purchase if using multi-function equipment. Once a CLEC exhausts its port capacity, it would need to collocate still more equipment, thus using more space in the incumbent LEC’s network. Since the CLEC could have conserved space by collocating multi-function equipment, the additional piece of equipment would result in an unnecessary use of space. Thus, if incumbent LECs truly were concerned about space considerations, they would not advocate a blanket rule foreclosing the collocation of all multi-function equipment.<sup>9</sup>

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<sup>7</sup> See Cisco Comments at 9 (to meet customer demand, “a service provider must be able to guarantee a certain level of performance (or QoS) commensurate with these services for those needing certainty and reliability.”).

<sup>8</sup> See Cisco Comments at 10-11. It appears that Cisco’s example assumes that the incumbent LEC provides bandwidth on a wholesale basis to CLECs. If the particular segment for which additional bandwidth is required is optical, as an initial matter, CLECs may be prevented from purchasing the necessary bandwidth. Several incumbent LECs in this proceeding are refusing to provide access to such “unbundled wavelength” capacity. Thus, Cisco’s analysis may be a very conservative estimate of the additional costs that a CLEC would incur if it is prohibited from collocating multi-function equipment.

<sup>9</sup> Several commenters explain that multi-functional equipment requires no more space than single function equipment, and in some instances, is smaller than single function

**2. Certain Functionalities Are “Necessary” for Interconnection and Access to Unbundled Network Elements.**

Numerous parties have argued that various functionalities are necessary for interconnection and access to UNEs. CompTel agrees that each of the cited functions is necessary for interconnection, and therefore, CLECs should be able to collocate equipment containing these functions. In particular, CompTel supports the mandatory collocation of equipment that performs, among other functions, multiplexing, concentration, and/or switching functions. As discussed below, the integration of such functions will enable a CLEC to offer more services to more customers than it might otherwise be able to do.<sup>10</sup>

CompTel’s collocation throughput approach justifies the collocation of equipment containing transmission functions, including concentration and multiplexing functions. CLECs use concentration devices in the same manner as do ILECs, that is, to concentrate traffic in order to make more efficient use of network resources.<sup>11</sup> Multiplexers also enable both ILECs and CLECs to use bandwidth more efficiently.<sup>12</sup> AT&T correctly states that the only alternative to

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equipment. *See, e.g.*, Comments at Tachion Networks, Inc. at 3; Rhythms NetCommunications at 13-14. Thus, space concerns as a result of using multi-function equipment are irrelevant.

<sup>10</sup> *See, e.g.* Joint Commenters at 24-25.

<sup>11</sup> ATG Comments at Attachment 1 (Declaration of Chuck Seefloth) at para. 7 (concentration devices include next generation digital loop carriers, channel banks, and GR 303 concentration devices, among others, and listing the following examples of such devices: Lucent Anymedia Fast Shelf; Cisco 6732; Zhone Sechtor 300; Zhone BAN; and DAML).

<sup>12</sup> *See* ATG Comments at Attachment 1 (Declaration of Chuck Seefloth) at para. 7 (multiplexers are an “integral aspect of moving lower bandwidth services onto the higher bandwidth transport facilities that are necessary for the efficient use of network resources”). Even Alcatel, which largely supports the incumbent LECs’ comments, recognizes that multiplexing is a “‘necessary’ feature of electronic equipment used for interconnection or access.” Alcatel Comments at 12 (stating that “without such an equipment feature, access would be limited to voice frequency (VF) copper facilities, which, in many cases, could not adequately support POTS.”).

collocating equipment containing these transmission functions would be to deploy additional interoffice transport, which would be prohibitively expensive—not to mention antiquated—and ultimately place greater demands on the ILECs' collocation space.<sup>13</sup> Moreover, a CLEC's ability to offer certain services, such as traditional voice services, would be impaired if it were not able to perform certain transmission functions in the central office with the collocated equipment.<sup>14</sup>

CompTel's throughput approach also demonstrates the necessity of collocating equipment containing certain switching functionalities, such as remote switch modules ("RSM") and packet switches. Absent the ability to collocate equipment containing either of these switching functionalities, a CLEC's cost of providing service would increase prohibitively because, as AT&T explains, CLECs would be forced to "incur the costs of multiplexing and 'backhauling' the traffic to and from an off-site location."<sup>15</sup> These functions also enable a carrier to maximize the use of its transport capacity by minimizing the traffic that needs to be routed back to a CLEC's main switch.<sup>16</sup> As such, CLECs are able to maximize the amount of traffic—in other words, throughput—exchanged through the collocation arrangement of such switching functionalities. Without these capabilities, a CLEC would suffer a substantial loss in functionality as well as efficiency.

The additional throughput that a CLEC would realize as a result of collocating equipment with the functions described above proves that the ILECs' arguments are unfounded. Specifically, BellSouth argues, without support, that precluding CLECs from collocating multi-

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<sup>13</sup> AT&T Comments at 20-21; see also Joint Commenters at 26 (stating that CLECs would have to incur transport costs among multiple pieces of equipment if they could not collocate multi-function equipment).

<sup>14</sup> See AT&T Comments at 22.

<sup>15</sup> AT&T Comments at 26.

function equipment would not relegate them to providing a lower quality of service than that which could be provided by locating certain functions outside of the incumbent LEC premises.<sup>17</sup> BellSouth does not provide any explanation of how it would be harmed by allowing certain types of multi-function equipment to be collocated, many of which, as noted, require no more space, and in fact, take up less space, than single function equipment. As stated above, without the ability to collocate equipment with multiple functions, not only would CLECs be unable to provide the same quality and range of services,<sup>18</sup> but they also would be unable to provide services of sufficient quality to compete with the ILEC. Thus, BellSouth's position reflects an effort to interpret section 251(c)(6) for its own strategic benefit, rather than any legitimate fear that its property would be taken needlessly due to an overinclusive definition of the statutory term "necessary."

As commenters have recognized, the Commission must adopt a flexible standard; that is, one that not only applies to the present technology and equipment, but also is responsive to changes in the telecommunications marketplace and the evolution of network equipment. As Cisco affirms, "[m]anufacturers and service providers have favored multifunctional equipment precisely because it offers capabilities that are most efficiently and effectively performed as an integrated set of functions."<sup>19</sup> Without the ability to collocate state-of-the-art multi-function equipment, CLECs would be relegated to moribund or obsolete equipment, while incumbent LECs would be able to take advantage of modern equipment specifically designed with a wide range of capabilities. This would prevent CLECs from offering the same products and services

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<sup>16</sup> AT&T Comments at 27; *see also* Comments of Corecomm, Inc., Vitis Networks, Inc., and Logix, Inc. at 20-21 (stating that CLECs should be permitted to collocate equipment that contains, among other things, remote switching modules).

<sup>17</sup> *See* BellSouth Comments at 5.

<sup>18</sup> *See, e.g.*, ATG Comments at 3; AT&T Comments at 22.

as the incumbents, and would be discriminatory, unjust, and unreasonable, in violation of section 251(c)(6).

**B. The Commission Should Not Seek To Distinguish Between Single-Function and Multi-Function Equipment.**

CompTel urges the Commission to reject any putative distinctions between single-function and multi-function equipment. So long as a CLEC has established interconnection with the ILEC through its collocation arrangement, the CLEC should be able to collocate any telecommunications equipment that will help maximize its collocation throughput. Modern telecommunications equipment increasingly defies easy categorization as “single” or “multi” functional. In fact, it is the rare piece of equipment that cannot be broken down into several discrete functionalities that are being provided or made available. As a result, the Commission should not try to determine whether certain equipment is single-function or multi-function equipment, but rather enable CLECs to collocate any equipment that will permit them to take maximum advantage of their collocation arrangement.

The comments of several parties support CompTel’s proposal that the Commission permit CLECs to collocate any telecommunications equipment or functionalities within the collocation arrangement where the CLEC has established interconnection with the incumbent LEC. For example, CLECs demonstrate that various types of switching equipment, including “soft switches,” are necessary for them to use their collocation arrangement to provide the services they desire to offer.<sup>20</sup> As McLeod USA explains, “soft-switching functionality separates some line-connection and switching matrix functions, allowing the functionality of the

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<sup>19</sup> Cisco Comments at 7.

<sup>20</sup> *See, e.g.*, Comments of McLeodUSA at 4. *See also* Comments of Tachion Networks, Inc. at 2 (explaining the wide range of functions available in the equipment it develops).